SEQUENCE LISTING

<110> Takara Shuzo Co., Ltd.

<120> A method for amplification of nucleic acids

<130>

<150> JP 11-076966
<151> 1999-03-19

<150> JP 11-370035
<151> 1999-12-27

<150> JP 2000-251981
<151> 2000-08-23

<150> JP 2000-284419
<151> 2000-09-19

<150> JP 2000-288750
<151> 2000-09-22

<150> JP 2001-104191
<151> 2001-04-03

<150> PCT/JP00/01534

<151> 2000-03-14

<160> 290

<210> 1

<211> 99

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA corresponding to a portion of human transferrin receptor-encoding sequence used as a template

<400> 1

ggacagcaac tgggccagca aagttgagaa actcacttta gagaattctg ctttcccttt 60

ccttgcatat tctgagcagt ttctttctgt ttttgcgag 99

<210> 2

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence

<400> 2

cagcaactgg gccagcaaag tt 22

<210> 3

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence

<400> 3

gcaaaaacag aaagaaactg ct 22

<210> 4

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of

human transferrin receptor-encoding sequence. "nucleotide 21 is ribonucleotide-other nucleotides are deoxyribonucleotides"

<400> 4

cagcaactgg gccagcaaag ut 22

<210> 5

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotide 21 is ribonucleotide-other nucleotides are deoxyribonucleotides"

<400> 5

gcaaaaacag aaagaaactg ct 22

<210> 6

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotide 22 is ribonucleotide-other nucleotides are deoxyribonucleotides"

<400> 6

cagcaactgg gccagcaaag tu 22

<210> 7

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotide 22 is ribonucleotide-other nucleotides are deoxyribonucleotides"

<400> 7

gcaaaaacag aaagaaactg cu 22

<210> 8

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 21 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 8

cagcaactgg gccagcaaag uu 22

<210> 9

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 21 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 9

gcaaaaacag aaagaaactg cu 22

<210> 10

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 19 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 10

cagcaactgg gccagcaaag tt 22

<210> 11

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 19 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 11

gcaaaaacag aaagaaacug ct 22

<210> 12

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide used as a probe for detecting an amplified portion of human transferrin receptor-encoding sequence

<400> 12

tgctttccct ttccttgcat attctg 26

<210> 13

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as pUC19 upper(2)NN to amplify a portion of plasmid pUC19. "nucleotides 24 to 25 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 13

attgcttaat cagtgaggca cctau 25

<210> 14

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as pUC19 lower NN to amplify a portion of plasmid pUC19. "nucleotides 24 to 25 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 14

gataacactg cggccaactt actuc 25

<210> 15

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of plasmid pUC19. "nucleotides 24 to 25 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 15

actggcgaac tacttactct agcuu 25

<210> 16

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as pUC19 lower 542 to amplify a portion of plasmid pUC19. "nucleotides 24 to 25 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 16

agtcaccagaa aagcatctta cggau 25

<210> 17

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of plasmid pUC19. "nucleotides 24 to 25 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 17

gctcatgaga caataaccct gataa 25

<210> 18

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as pUC19 upper 150 to amplify a portion of plasmid pUC19. "nucleotides 23 to 25 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 18

ggtgtcacgc tcgtcgtttg gtaug 25

<210> 19

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as pUC19 lower NN to amplify a portion of plasmid pUC19. "nucleotides 23 to 25 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 19

gataacactg cggccaactt acuuc 25

<210> 20

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as pUC19 upper 249 to amplify a portion of plasmid pUC19. "nucleotides 23 to 25 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 20

cgcctccatc cagtctatta atugu 25

<210> 21

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 20 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 21

ctgattgaga ggattcctga gu 22

<210> 22

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 21 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 22

tagggagaga ggaagtgata cu 22

<210> 23

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as pUC19 upper(2)NN to amplify a portion of plasmid pUC19. "nucleotides 24 to 25 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 23

attgcttaat cagtgaggca cctau 25

<210> 24

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as pUC19 upper(2)NN to amplify a portion of plasmid pUC19. "nucleotides 24 to 25 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 24

attgcttaat cagtgaggca cctaa 25

<210> 25

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as pUC19 upper(2)NN to amplify a portion of plasmid pUC19. "nucleotides 24 to 25 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 25

attgcttaat cagtgaggca cctac 25

<210> 26

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as pUC19 upper(2)NN to amplify a portion of plasmid pUC19. "nucleotides 24 to 25 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 26

attgcttaat cagtgaggca cctag 25

<210> 27

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 21 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 27

ctgattgaga ggattcctga gu 22

<210> 28

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 21 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 28

tagggagaga ggaagtgata cu 22

<210> 29

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as MF2N3(24) to amplify a portion of plasmid pUC19-249 or plasmid pUC19-911.

"nucleotides 22 to 24 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 29

gctgcaaggc gattaagttg ggua 24

<210> 30

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as MR1N3(24) to amplify a portion of plasmid pUC19-249 or plasmid pUC19-911. "nucleotides 22 to 24 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 30

ctttatgctt ccggctcgta tguu 24

<210> 31

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as pUC19 upper 249 to amplify a portion of plasmid pUC19. "nucleotides 24 to 25 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 31

cgcctccatc cagtctatta attgu 25

<210> 32

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as pUC19 upper 150 to amplify a portion of plasmid pUC19

<400> 32

ggtgtcacgc tcgtcgtttg gtatg 25

<210> 33

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as pUC19 upper 249 to amplify a portion of plasmid pUC19

<400> 33

cgcctccatc cagtctatta attgt 25

<210> 34

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as pUC19 lower NN to amplify a portion of plasmid pUC19

<400> 34

gataacactg cggccaactt acttc 25

<210> 35

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of plasmid pUC19. "nucleotides 28 to 30 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 35

ggatgtgctg caaggcgatt aagttgggua 30

<210> 36

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as MR1N3 to amplify a portion of plasmid pUC19. "nucleotides 28 to 30 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 36

tttacacttt atgcttccgg ctcgtatguu 30

<210> 37

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of plasmid pUC19

<400> 37

ggatgtgctg caaggcgatt aagttgggta 30

<210> 38

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as MR1N3 to amplify a portion of plasmid pUC19

<400> 38

tttacacttt atgcttccgg ctcgtatgtt 30

<210> 39

<211> 30

<212> RNA

<213> Artificial Sequence

<220>

<223> Synthetic RNA used as a probe for detecting an amplified portion of plasmid pUC19

<400> 39

ugaucccccа uguugugcaa aaaagcgguu 30

<210> 40

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as pUC19 upper 150 to amplify a portion of plasmid pUC19. "nucleotides 24 to 25 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 40

ggtgtcacgc tcgtcgtttg gtaug 25

<210> 41

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as MR1N3 to amplify a portion of plasmid pUC19. "nucleotides 28 to 30 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 41

tttacacttt atgcttccgg ctcgtatguu 30

<210> 42

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as M13M4

<400> 42

gttttcccag tcacgac 17

<210> 43

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of

vero toxin 1-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 16 to 18 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 43

agttaatgtg gtggcgaa 18

<210> 44

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 1-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 15 to 17 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 44

gactcttcca tctgcca 17

<210> 45

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 16 to 18 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 45

ttcggtatcc tattcccg 18

<210> 46

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 16 to 18 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 46

tctctggtca ttgtauua 18

<210> 47

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as MCR-F to amplify a long DNA fragment

<400> 47

ccattcaggc tgcgcaactg tt 22

<210> 48

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as MCR-R to amplify a long DNA fragment

<400> 48

tggcacgaca ggtttcccga ct 22

<210> 49

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as MF2N3(24) to amplify a long DNA fragment. "nucleotides 22 to 24 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 49

gctgcaaggc gattaagttg ggua 24

<210> 50

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as MR1N3(24) to amplify a long DNA fragment. "nucleotides 22 to 24 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 50

ctttatgctt ccggctcgta tguu 24

<210> 51

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of bacteriophage lambda DNA

<400> 51

aacaacaaga aactggtttc 20

<210> 52

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of bacteriophage lambda DNA

<400> 52

gcaatgcatg acgactgggg 20

<210> 53

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of bacteriophage lambda DNA. "nucleotides 16 to 17 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 53

gttttcccag tcacgac 17

<210> 54

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of bacteriophage lambda DNA. "nucleotides 16 to 17 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 54

caggaaacag ctatgac 17

<210> 55

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of bacteriophage lambda DNA

<400> 55

gtacggtcat catctgacac 20

<210> 56

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of bacteriophage lambda DNA

<400> 56

gcaatcggca tgttaaacgc 20

<210> 57

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of bacteriophage lambda DNA

<400> 57

cgccatcctg ggaagactcc 20

<210> 58

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as R1-S1 to amplify a portion of bacteriophage lambda DNA

<400> 58

tttcacacag gaaacagcta tgacaacaac aagaaactgg tttc 44

<210> 59

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as R1-A3 to amplify a portion of bacteriophage lambda DNA

<400> 59

tttcacacag gaaacagcta tgacgcaatg catgacgact gggg 44

<210> 60

<211> 62

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as R2-S1 to amplify a portion of bacteriophage lambda DNA

<400> 60

attgtgagcg gataacaatt tcacacagga aacagctatg acaacaacaa gaaactggtt tc 60

62

<210> 61

<211> 62

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as R2-A3 to amplify a portion of bacteriophage lambda DNA

<400> 61

attgtgagcg gataacaatt tcacacagga aacagctatg acgcaatgca tgacgactgg gg 62

<210> 62

<211> 95

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as R3-S1 to amplify a portion of bacteriophage lambda DNA

<400> 62

cactttatgc ttccggctcg tatgttgtgt ggaattgtga gcggataaca atttcacaca ggaaacagct atgacaacaa caagaaactg gtttc 95

<210> 63

<211> 95

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as R3-A3 to amplify a portion of bacteriophage lambda DNA

<400> 63

cactttatgc ttccggctcg tatgttgtgt ggaattgtga gcggataaca atttcacaca 60

ggaaacagct atgacgcaat gcatgacgac tgggg 95

<210> 64

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as M13RV-2N 17mer. "nucleotides 16 to 17 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 64

caggaaacag ctatgac 17

<210> 65

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as M13RV-2N 20mer. "nucleotides 19 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 65

acacaggaaa cagctatgac 20

<210> 66

<211> 70

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of CDC2-related protein kinase PISSLRE gene

<400> 66

gagttcgtgt ccgtacaact atttcacaca ggaaacagct atgacccaac aagagcctat 60

agcttcgctc 70

<210> 67

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of CDC2-related protein kinase PISSLRE gene

<400> 67

tcgaaatcag ccacagcgcc atttcacaca ggaaacagct atgacccgct gtctttgagt tgtggtg 67

<210> 68

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of Type II cytoskeltal 11 keratin gene

<400> 68

gagttcgtgt ccgtacaact atttcacaca ggaaacagct atgacgctat tctgacatca ctttccagac 70

<210> 69

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of Type II cytoskeltal 11 keratin gene

<400> 69

tcgaaatcag ccacagcgcc atttcacaca ggaaacagct atgacgaatt ccactggtgg 60

cagtag 66

<210> 70

<211> 62

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of bacteriophage lambda DNA

<400> 70

attgtgagcg gataacaatt tcacacagga aacagctatg acgtacggtc atcatctgac 60

ac 62

<210> 71

<211> 62

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of bacteriophage lambda DNA

<400> 71

attgtgagcg gataacaatt tcacacagga aacagctatg acatgcgccg cctgaaccac 60

ca 62

<210> 72

<211> 62

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of bacteriophage lambda DNA

<400> 72

attgtgagcg gataacaatt tcacacagga aacagctatg acctgctctg ccgcttcacg 60
ca 62

<210> 73
<211> 62
<212> DNA
<213> Artificial Sequence

<220>
<223> Designed oligonucleotide primer to amplify a portion of bacteriophage lambda DNA

<400> 73
attgtgagcg gataacaatt tcacacagga aacagctatg acgcaatcgg catgttaaac 60
gg 62

<210> 74
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Designed oligonucleotide primer designated as MF2N3(24) to amplify a portion of plasmid pUC19-249 or plasmid pUC19-911

<400> 74

gctgcaaggc gattaagttg ggta 24

<210> 75

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as MR1N3(24) to amplify a portion of plasmid pUC19-249 or plasmid pUC19-911

<400> 75

ctttatgctt ccggctcgta tgtt 24

<210> 76

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as M13M4-3N 20mer. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 76

agggttttcc cagtcacgac 20

<210> 77

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as M13RV-3N 20mer. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 77

acacaggaaa cagctatgac 20

<210> 78

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as M13M4-3N 24mer. "nucleotides 22 to 24 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 78

cgccagggtt ttcccagtca cgac 24

<210> 79

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as M13RV-3N 24mer: "nucleotides 22 to 24 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 79

tttcacacag gaaacagcta tgac 24

<210> 80

<211> 70

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as 5'ID to amplify a portion of cyclin A DNA

<400> 80

tcgaaatcag ccacagcgcc atttcacaca ggaaacagct atgacatgtt ttgggagaa 60

ttaagtctga 70

<210> 81

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as 3' ID to amplify a portion of cyclin A DNA

<400> 81

gagttcgtgc cgtacaacta tttcacacag gaaacagcta tgacttacag atttagtgtc 60

tctggtggg 69

<210> 82

<211> 16

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as M13RV-2N 16mer.

"nucleotides 15 to 16 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 82

aggaaacagc tatgac 16

<210> 83

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 21 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 83

cagcaactgg gccagcaaag uugagaa 27

<210> 84

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 21 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 84

gcaaaaacag aaagaaactg cucagaa 27

<210> 85

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 21 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 85

cagcaactgg gccagcaaag uugaga 26

<210> 86

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 21 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 86

gcaaaaacag aaagaaactg cucaga 26

<210> 87

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 21 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 87

cagcaactgg gccagcaaag uugag 25

<210> 88

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 21 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 88

gcaaaaacag aaagaaactg cucag 25

<210> 89

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 21 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 89

cagcaactgg gccagcaaag uuga 24

<210> 90

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 21 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 90

gcaaaaacag aaagaaactg cuca 24

<210> 91

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 21 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 91

cagcaactgg gccagcaaag uug 23

<210> 92

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 21 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 92

gcaaaaacag aaagaaactg cuc 23

<210> 93

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 21 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 93

cagcaactgg gccagcaaag uu 22

<210> 94

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence. "nucleotides 21 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 94

gcaaaaacag aaagaaactg cu 22

<210> 95

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence

<400> 95

caacttcaag gtttctgcca gc 22

<210> 96

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of human transferrin receptor-encoding sequence

<400> 96

aatagtccaa gtagctagag c 21

<210> 97

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer BsuII-3 for cloning a gene encoding a polypeptide having a RNaseHII activity from Bacillus caldotenax

<400> 97

gtcgccagcg cagtnathyt 20

<210> 98

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer BsuII-6 for cloning a gene encoding a polypeptide having a RNaseHII activity from Bacillus caldotenax

<400> 98

cggtccctcg tcacyttngc 20

<210> 99

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer RNII-S1 for cloning a gene encoding a polypeptide having a RNaseHII activity from Bacillus caldotenax

<400> 99

cgcgcttttc cggcgtcagc 20

<210> 100

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer RNII-S2 for cloning a gene encoding a polypeptide having a RNaseHII activity from Bacillus caldotenax

<400> 100

acggcgcacg cttcaatttg 20

<210> 101

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer RNII-S5 for cloning a gene encoding a polypeptide having a RNaseHII activity from Bacillus caldotenax

<400> 101

acgcctattt gccggggctt 20

<210> 102

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer RNII-S6 for cloning a gene encoding a polypeptide having a RNaseHII activity from Bacillus caldotenax

<400> 102

atgaccgacg cagcggcgat 20

<210> 103

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer RNII-Nde for cloning a gene encoding a polypeptide having a RNaseHII activity from Bacillus caldotenax

<400> 103

tagaagaggg agaggcatat gaagcggtat acggtgaaa 39

<210> 104

<211> 780

<212> DNA

<213> Bucillus caldotenax

<400> 104

atgaagcggt atacggtgaa agacattgaa gcgctgcttc cgaagcttgg cgcggacgac 60

ccgcgctggg agatgctgcg gcaggatgag cgaaaaagcg tgcaggcgct tcttgcccgt 120

tttgaaaggc agaaagcgcg ccggcacgcc atcgagcagc ggtgggaaga actaatgcgt 180

tatgagaggg aactatacgc cgctggcgtt agacggatcg ccggcattga tgaggccggg 240

cgcggcccgc tggccggccc ggtcgtcgcc gccgcggtca tcttgccgaa agacgcctat 300

ttgccggggc ttgacgactc gaagcggctg acgccggaaa agcgcgaggc attgtttgcg 360

caaattgaag cgtgcgccgt cgccatcggc atcggcatcg tcagcgcggc ggagatcgat 420

gaaaggaata tttacgaagc gacaaggcaa gcgatggcga aagcggtgaa cgcctttcc 480

ccgccgcctg aacatttgct tgttgatgcg atggcggtgc cgtgcccact gccgcaacag 540

cgcctcataa aaggagacgc caacagcgct tcaatcgccg ctgcgtcggt catcgccaaa 600

gtgacgcgcg accggtggat gaaagaactg gatcgccgct atccacaata cgggttcgcg 660

cgccatatgg gctacggaac gccggaacat ttcgaggcga tccgccgcta cggcgttacg 720

cctgagcacc gtcgttcgtt cgcaccggtg agggaggtgc tgaaggcgag cgagcagctc 780

<210> 105

<211> 260

<212> PRT

<213> Bucillus caldotenax

<400> 105

Met Lys Arg Tyr Thr Val Lys Asp Ile Glu Ala Leu Leu Pro Lys

1 5 10 15

Leu Gly Ala Asp Asp Pro Arg Trp Glu Met Leu Arg Gln Asp Glu

20 25 30

Arg Lys Ser Val Gln Ala Leu Leu Ala Arg Phe Glu Arg Gln Lys
35 40 45
Ala Arg Arg His Ala Ile Glu Gln Arg Trp Glu Glu Leu Met Arg
50 55 60
Tyr Glu Arg Glu Leu Tyr Ala Ala Gly Val Arg Arg Ile Ala Gly
65 70 75
Ile Asp Glu Ala Gly Arg Gly Pro Leu Ala Gly Pro Val Val Ala
80 85 90
Ala Ala Val Ile Leu Pro Lys Asp Ala Tyr Leu Pro Gly Leu Asp
95 100 105
Asp Ser Lys Arg Leu Thr Pro Glu Lys Arg Glu Ala Leu Phe Ala
110 115 120
Gln Ile Glu Ala Cys Ala Val Ala Ile Gly Ile Gly Ile Val Ser
125 130 135
Ala Ala Glu Ile Asp Glu Arg Asn Ile Tyr Glu Ala Thr Arg Gln
140 145 150
Ala Met Ala Lys Ala Val Asn Ala Leu Ser Pro Pro Pro Glu His
155 160 165
Leu Leu Val Asp Ala Met Ala Val Pro Cys Pro Leu Pro Gln Gln
170 175 180
Arg Leu Ile Lys Gly Asp Ala Asn Ser Ala Ser Ile Ala Ala Ala
185 190 195
Ser Val Ile Ala Lys Val Thr Arg Asp Arg Trp Met Lys Glu Leu
200 205 210
Asp Arg Arg Tyr Pro Gln Tyr Gly Phe Ala Arg His Met Gly Tyr

215 220 225

Gly Thr Pro Glu His Phe Glu Ala Ile Arg Arg Tyr Gly Val Thr

230 235 240

Pro Glu His Arg Arg Ser Phe Ala Pro Val Arg Glu Val Leu Lys

245 250 255

Ala Ser Glu Gln Leu

260

<210> 106

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer BsuIII-1 for cloning a gene encoding a polypeptide having a RNaseHIII activity from Bacillus caldotenax

<400> 106

ggtaaggtct tgttycargg 20

<210> 107

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer BsuIII-3 for cloning a gene encoding a polypeptide having a RNaseHIII activity from Bacillus caldotenax

<400> 107

ggaaccggag attayttygg 20

<210> 108

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer BsuIII-6 for cloning a gene encoding a polypeptide having a RNaseHIII activity from Bacillus caldotenax

<400> 108

atgattgaag cagcngcnac 20

<210> 109

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer BsuIII-8 for cloning a gene encoding a polypeptide having a RNaseHIII activity from Bacillus caldotenax

<400> 109

gtattggcga aatgnarytt 20

<210> 110

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer RNIII-S3 for cloning a gene encoding a polypeptide having a RNaseHIII activity from Bacillus caldotenax

<400> 110

cccgatcgtc gtcgccgccg 20

<210> 111

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer BcaRNIII-3 for cloning a gene encoding a polypeptide

having a RNaseHIII activity from Bacillus caldotenax

<400> 111

gatacgtgga cactttccgc 20

<210> 112

<211> 915

<212> DNA

<213> Bucillus caldotenax

<400> 112

gtgattcaag ccgaccaaca gctgcttgac gccttgcgcg cccactacca agacgcctta 60

tccgaccggc ttccggctgg agcgttgttt gccgtcaagc gcccggatgt cgtcatcacc 120

gcctaccgct caggcaaagt gctgtttcaa gggaaagcgg cggagcaaga agcagcgaaa 180

tggatatcag gggcgagcgc ctcaaacgaa acagctgacc accagccgtc cgctttggca 240

gctcatcaac tcgggtctct ttccgccatc ggttccgatg aagtcggcac cggcgattat 300

ttcggcccga tcgtcgtcgc cgccgcctac gtggatcggc cgcatatcgc caaaatcgcg 360

gcgcttggcg tgaaagattc gaaacaattg aacgatgagg caatcaaacg gatcgccccc 420

gccatcatgg aaaccgtgcc gcatgcggtc accgtgttgg acaatgccga atacaaccgc 480

tggcagcgaa gcggcatgcc gcagacgaaa atgaaagcgc tccttcacaa ccggacgctc 540

gtgaaactcg ttgacgccat cgcgcccgcc gaaccagaag caatcatcat cgacgaattt 600

ttaaaacggg attcgtattt ccgttacctt tccgatgaag atcgcattat ccgcgagcgg 660

gtgcactgcc ttcccaaggc ggaaagtgtc cacgtatcag tcgccgccgc ctcgatcatc 720

gcccgctatg tgtttttaga ggagatggag caattatccc gcgccgtcgg cctcctgctt 780

ccaaaaggcg ccggcgccat tgtcgatgaa gccgcggcca acatcatccg cgcgcggggg 840

gcggaagcgc ttgagacatg cgccaagctt catttcgcca atacaaaaaa ggcgctggac 900

atcgccaaac gccgg 915

<210> 113

<211> 305

<212> PRT

<213> Bucillus caldotenax

<400> 113

Met Ile Gln Ala Asp Gln Gln Leu Leu Asp Ala Leu Arg Ala His
1 5 10 15

Tyr Gln Asp Ala Leu Ser Asp Arg Leu Pro Ala Gly Ala Leu Phe
20 25 30

Ala Val Lys Arg Pro Asp Val Val Ile Thr Ala Tyr Arg Ser Gly
35 40 45

Lys Val Leu Phe Gln Gly Lys Ala Ala Glu Gln Glu Ala Ala Lys
50 55 60

Trp Ile Ser Gly Ala Ser Ala Ser Asn Glu Thr Ala Asp His Gln
65 70 75

Pro Ser Ala Leu Ala Ala His Gln Leu Gly Ser Leu Ser Ala Ile
80 85 90

Gly Ser Asp Glu Val Gly Thr Gly Asp Tyr Phe Gly Pro Ile Val
95 100 105

Val Ala Ala Ala Tyr Val Asp Arg Pro His Ile Ala Lys Ile Ala
110 115 120

Ala Leu Gly Val Lys Asp Ser Lys Gln Leu Asn Asp Glu Ala Ile
125 130 135
Lys Arg Ile Ala Pro Ala Ile Met Glu Thr Val Pro His Ala Val
140 145 150
Thr Val Leu Asp Asn Ala Glu Tyr Asn Arg Trp Gln Arg Ser Gly
155 160 165
Met Pro Gln Thr Lys Met Lys Ala Leu Leu His Asn Arg Thr Leu
170 175 180
Val Lys Leu Val Asp Ala Ile Ala Pro Ala Glu Pro Glu Ala Ile
185 190 195
Ile Ile Asp Glu Phe Leu Lys Arg Asp Ser Tyr Phe Arg Tyr Leu
200 205 210
Ser Asp Glu Asp Arg Ile Ile Arg Glu Arg Val His Cys Leu Pro
215 220 225
Lys Ala Glu Ser Val His Val Ser Val Ala Ala Ala Ser Ile Ile
230 235 240
Ala Arg Tyr Val Phe Leu Glu Glu Met Glu Gln Leu Ser Arg Ala
245 250 255
Val Gly Leu Leu Leu Pro Lys Gly Ala Gly Ala Ile Val Asp Glu
260 265 270
Ala Ala Ala Asn Ile Ile Arg Ala Arg Gly Ala Glu Ala Leu Glu
275 280 285
Thr Cys Ala Lys Leu His Phe Ala Asn Thr Lys Lys Ala Leu Asp
290 295 300
Ile Ala Lys Arg Arg

<210> 114

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer BcaRNIIINde for amplifying a gene encoding a polypeptide having a RNaseHIII activity from Bacillus caldotenax

<400> 114

cgaacgttgt caaaccatat gattcaagcc gaccaacag 39

<210> 115

<211> 663

<212> DNA

<213> Pyrococcus horikoshii

<400> 115

atgaaggttg ctggagttga tgaagcgggg agggggccgg taattggccc gttagtaatt 60

ggagtagccg ttatagatga gaaaaatatt gagaggttac gtgacattgg ggttaaagac 120

tccaaacaat taactcctgg gcaacgtgaa aaactattta gcaaattaat agatatccta 180

gacgattatt atgttcttct cgttaccccc aaggaaatag atgagaggca tcattctatg 240

aatgaactag aagctgagaa attcgttgta gccttgaatt ctttaaggat caagccgcag 300

aagatatatg tggactctgc cgatgtagat cctaagaggt ttgctagtct aataaaggct 360

gggttgaaat atgaagccac ggttatcgcc gagcataaag ccgatgcaaa gtatgagata 420

gtatcggcag catcaataat tgcaaaggtc actagggata gagagataga gaagctaaag 480

caaaagtatg gggaatttgg ttctggctat ccgagtgatc cgagaactaa ggagtggctt 540

gaagaatatt acaaacaata tggtgacttt cctccaatag ttaggagaac ttgggaaacc 600

gctaggaaga tagaggaaag gtttagaaaa aatcagctaa cgcttgataa attccttaag 660

tga 663

<210> 116

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer 1650Nde for cloning a gene encoding a polypeptide having a RNaseHII activity from Pyrococcus furiosus

<400> 116

caggaggaga gacatatgaa aatagggga att 33

<210> 117

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer 1650Bam for cloning a gene encoding a polypeptide having a RNaseHII activity from Pyrococcus furiosus

<400> 117

gaaggttgtg gatccacttt ctaaggtttc tta 33

<210> 118

<211> 672

<212> DNA

<213> Pyrococcus furiosus

<400> 118

atgaaaatag ggggaattga cgaagcagga agaggaccag cgatagggcc attagtagta 60

gctactgtcg tcgttgatga gaaaaacatt gagaagctca gaaacattgg agtaaaagac 120

tccaaacaac taacacccca tgaaaggaag aatttatttt cccagataac ctcaatagcg 180

gatgattaca aaatagtgat agtatcccca gaagaaatcg acaatagatc aggaacaatg 240

aacgagttag aggtagagaa gtttgctctc gccttaaatt cgcttcagat aaaaccagct 300

cttatatacg ctgatgcagc ggatgtagat gccaatagat ttgcaagctt gatagagaga 360

agactcaatt ataaggcgaa gattattgcc gaacacaagg ccgatgcaaa gtatccagta 420

gtttcagcag cttcaatact tgcaaaggtt gttagggatg aggaaattga aaaattaaaa 480

aagcaatatg gagactttgg ctctgggtat ccaagtgatc caaaaaccaa gaaatggctt 540

gaagagtact acaaaaaaca caactctttc cctccaatag tcagacgaac ctgggaaact 600

gtaagaaaaa tagaggaaag cattaaagcc aaaaaatccc agctaacgct tgataaattc 660

tttaagaaac ct 672

<210> 119

<211> 224

<212> PRT

<213> Pyrococcus furiosus

<400> 119

Met Lys Ile Gly Gly Ile Asp Glu Ala Gly Arg Gly Pro Ala Ile
1 5 10 15

Gly Pro Leu Val Val Ala Thr Val Val Val Asp Glu Lys Asn Ile
20 25 30

Glu Lys Leu Arg Asn Ile Gly Val Lys Asp Ser Lys Gln Leu Thr
35 40 45

Pro His Glu Arg Lys Asn Leu Phe Ser Gln Ile Thr Ser Ile Ala
50 55 60

Asp Asp Tyr Lys Ile Val Ile Val Ser Pro Glu Glu Ile Asp Asn
65 70 75

Arg Ser Gly Thr Met Asn Glu Leu Glu Val Glu Lys Phe Ala Leu
80 85 90

Ala Leu Asn Ser Leu Gln Ile Lys Pro Ala Leu Ile Tyr Ala Asp
95 100 105

Ala Ala Asp Val Asp Ala Asn Arg Phe Ala Ser Leu Ile Glu Arg
110 115 120

Arg Leu Asn Tyr Lys Ala Lys Ile Ile Ala Glu His Lys Ala Asp

125 130 135

Ala Lys Tyr Pro Val Val Ser Ala Ala Ser Ile Leu Ala Lys Val

140 145 150

Val Arg Asp Glu Glu Ile Glu Lys Leu Lys Lys Gln Tyr Gly Asp

155 160 165

Phe Gly Ser Gly Tyr Pro Ser Asp Pro Lys Thr Lys Lys Trp Leu

170 175 180

Glu Glu Tyr Tyr Lys Lys His Asn Ser Phe Pro Pro Ile Val Arg

185 190 195

Arg Thr Trp Glu Thr Val Arg Lys Ile Glu Glu Ser Ile Lys Ala

200 205 210

Lys Lys Ser Gln Leu Thr Leu Asp Lys Phe Phe Lys Lys Pro

215 220

<210> 120

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer 915-F1 for cloning a gene encoding a polypeptide having a RNaseHII activity from Thermotoga maritima

<400> 120

aaaaagcttg ggaatagatg agctttac 28

<210> 121

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer 915-F2 for cloning a gene encoding a polypeptide having a RNaseHII activity from Thermotoga maritima

<400> 121

aaaccatggg aatagatgag ctttac 26

<210> 122

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer 915-R1 for cloning a gene encoding a polypeptide having a RNaseHII activity from Thermotoga maritima

<400> 122

aaatctagat cctcaacttt gtcgatgtg 29

<210> 123

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer 915-R2 for cloning a gene encoding a polypeptide having a RNaseHII activity from Thermotoga maritima

<400> 123

aatctagatt aaaaaagagg gagattatgg 30

<210> 124

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as MCS-F to amplify a long DNA fragment

<400> 124

ccattcaggc tgcgcaactg tt 22

<210> 125

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as MCS-R to amplify a long DNA fragment

<400> 125

tggcacgaca ggtttcccga ct 22

<210> 126

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as MF2N3(24) to amplify a long DNA fragment. "nucleotides 22 to 24 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 126

gctgcaaggc gattaagttg ggua 24

<210> 127

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as MR1N3(24) to amplify a long DNA fragment. "nucleotides 22 to 24 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 127

ctttatgctt ccggctcgta tguu 24

<210> 128

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of lambda DNA. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 128

cctttctctg tttttgtccg 20

<210> 129

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of lambda DNA. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 129

aagcacctca ttaccctugc 20

<210> 130

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of lambda DNA

<400> 130

gggcggcgac ctcgcgggtt ttcg 24

<210> 131

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of lambda DNA

<400> 131

gctgcttatg ctctataaag tagg 24

<210> 132

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of Flavobacterium species DNA. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 132

aggaatcttt atttaccaug 20

<210> 133

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of Flavobacterium species DNA. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 133

tggtgtttaa acttattgcg 20

<210> 134

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of Flavobacterium species DNA.

<400> 134

ccatcagcta taaacacaaa cagc 24

<210> 135

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of Flavobacterium species DNA.

<400> 135

tgttttgacc aaacatagta atgc 24

<210> 136

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 19 to 21 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 136

tcgttaaata gtatacggac a 21

<210> 137

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 137

tgctcaataa tcagacgaag 20

<210> 49

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157.

<400> 138

aaatggggta ctgtgcctgt tact 24

<210> 139

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157.

<400> 139

ctctgtatct gcctgaagcg taag 24

<210> 140

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 140

tacctgggtt tttcttcggu a 20

<210> 141

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 141

atagactttt cgacccaaca 20

<210> 142

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157.

"nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 142

atagacatca agccctcgua 20

<210> 143

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157.

<400> 143

tcgttaaata gtatacggac a 21

<210> 144

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of vero

toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157.

<400> 144

atagacatca agccctcgta 20

<210> 145

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of lambda DNA. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 145

gaacaatgga agtcaacaaa 20

<210> 146

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of viroid

CSVd.

<400> 146

tacttgtggt tcctgtggtg 20

<210> 147

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of viroid CSVd.

<400> 147

atactaaggt tccaagggct 20

<210> 148

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of viroid CSVd. "nucleotides 16 to 18 are ribonucleotides-other

nucleotides are deoxyribonucleotides"

<400> 148

ggaaacctgg aggaaguc 18

<210> 149

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of viroid CSVd. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 149

gtgaaaaccc tgtttaggau 20

<210> 150

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of

Flavobacterium species DNA. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 150

acctagatat aagctctaca 20

<210> 151

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of Flavobacterium species DNA. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 151

aaatagatgt tttagcagag 20

<210> 152

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of Flavobacterium species DNA. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 152

atagataaaa aaaactccac 20

<210> 153

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 19 to 21 are ribonucleotides-nucloetide 18 is inosine-other nucleotides are deoxyribonucleotides"

<400> 153

tcgttaaata gtatacgiac a 21

<210> 154

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 19 to 21 are ribonucleotides-nucleotide 17 is inosine other nucleotides are deoxyribonucleotides"

<400> 154

tcgttaaata gtatacigac a 21

<210> 155

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 19 to 21 are ribonucleotides-nucleotide 16 is inosine-other nucleotides are deoxyribonucleotides"

<400> 155

tcgttaaata gtataiggac a 21

<210> 156

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 18 to 20 are ribonucleotides-nucleotide 17 is inosine-other nucleotides are deoxyribonucleotides"

<400> 156

tgctcaataa tcagaciaag 20

<210> 157

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 18 to 20 are ribonucleotides-nucleotide 16 is inosine-other nucleotides are deoxyribonucleotides"

<400> 157

tgctcaataa tcagaigaag 20

<210> 158

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 18 to 20 are ribonucleotides-nucleotide 15 is inosine-other nucleotides are deoxyribonucleotides"

<400> 158

tgctcaataa tcagicgaag 20

<210> 159

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 9 to 11 and 19 to 21 are ribonucleotides-other

nucleotides are deoxyribonucleotides"

<400> 159

tacctggguu uttcttcggu a 21

<210> 160

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 8 to 10 and 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 160

atagacauca agccctcgua 20

<210> 161

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 161

gtcccctgag atatatguuc 20

<210> 162

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide probe to detect a DNA fragment amplifing a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157.

<400> 162

ccaacaaagt tatgtctctt cgttaaatag 30

<210> 163

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of iNOS-encoding sequence from mouse. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 163

atgccattga gttcatcaac 20

<210> 164

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of iNOS-encoding sequence from mouse. "nucleotides 17 to 19 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 164

tcttggtggc aaagatgag 19

<210> 165

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of iNOS-encoding sequence from mouse.

<400> 165

atgccattga gttcatcaac 20

<210> 166

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of iNOS-encoding sequence from mouse

<400> 166

tcttggtggc aaagatgag 19

<210> 167

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as GMO-PCR-F 20mer

<400> 167

atcgttgaag atgcctctgc 20

<210> 168

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> designed oligonucleotide primer designated as GMO-PCR-R 20mer

<400> 168

tccgtatgat cgcgcgtcat 20

<210> 169

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as GMO-S1

20mer. "nucleotides 19 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 169

tttggagagg acacgctgac 20

<210> 170

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as GMO-S2 20mer. "nucleotides 19 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 170

ggacacgctg acaagctgac 20

<210> 171

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as GMO-A1 20mer. "nucleotides 19 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 171

ggctgtagcc actgatgcug 20

<210> 172

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as GMO-A2 20 mer. "nucleotides 19 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 172

ttccggaaag gccagaggau 20

<210> 173

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 18 to 20 are (alpha-thio)ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 173

tactgggtt tttcttcggu a 20

<210> 174

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of vero toxin 2-encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 18 to 20 are (alpha-thio)ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 174

atagacatca agccctcgua 20

<210> 175

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of INOS-encoding sequence from mouse."nucleotides 20 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 175

tcatgccatt gagttcatca ac 22

<210> 176

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of INOS-encoding sequence from mouse."nucleotides 20 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 176

tggtaggttc ctgttgtttc ua 22

<210> 177

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of INOS-encoding sequence from mouse.

<400> 177

tcatgccatt gagttcatca ac 22

<210> 178

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of INOS-encoding sequence from mouse.

<400> 178

tggtaggttc ctgttgtttc ta 22

<210> 179

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of lambda DNA. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 179

ctgcgaggcg gtggcaaggg 20

<210> 180

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of lambda DNA. "nucleotides 19 to 21 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 180

ctgcctcgct ggccgtgccg c 21

<210> 181

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of INOS-encoding sequence from mouse."nucleotides 21 to 23 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 181

ctcatgccat tgagttcatc aac 23

<210> 182

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of INOS-encoding sequence from mouse."nucleotides 20 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 182

gctggtaggt tcctgttgtu uc 22

<210> 183

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of pDON-AI DNA."nucleotides 17 to 19 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 183

agctctgtat ctggcggac 19

<210> 184

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of pDON-AI DNA."nucleotides 19 to 21 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 184

gatcgggatt tttggactca g 21

<210> 185

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of HPV type16 DNA."nucleotides 19 to 21 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 185

caaaagagaa ctgcaatguu u 21

<210> 186

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of HPV type16 DNA."nucleotides 19 to 21 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 186

gttgcttgca gtacacacau u 21

<210> 187

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide probe to detect a DNA fragment amplifing a portion of HPV DNA.

<400> 187

gaggacccac aggagcgacc cagaaag 27

<210> 188

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of HCV.

<400> 188

cactccacca tgaatcactc 20

<210> 189

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of HCV.

<400> 189

ggtgcacggt ctacgagacc 20

<210> 190

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of HCV. "nucleotides 19 to 21 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 190

ctgtgaggaa ctactgtcuu c 21

<210> 191

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of HCV. "nucleotides 16 to 18 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 191

gcagaccact atggcucu 18

<210> 192

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide probe to detect a DNA fragment amplifing portion of HCV.

<400> 192

gtatgagtgt cgtgcagcct ccaggacccc 30

<210> 193

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of adenovirus. "nucleotides 19 to 21 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 193

tgagacatat tatctgccac g 21

<210> 194

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of adenovirus. "nucleotides 19 to 21 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 194

aaatggctag gaggtggaag a 21

<210> 195

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of adenovirus. "nucleotides 19 to 21 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 195

ttatcagcca gtacctctuc g 21

<210> 196

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of adenovirus

<400> 196

tgagacatat tatctgccac g 21

<210> 197

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of adenovirus.

<400> 197

aaatggctag gaggtggaag a 21

<210> 198

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of viroid CSVd.

<400> 198

ggggaaacct ggaggaagtc 20

<210> 199

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of viroid CSVd.

<400> 199

cgggtagtag ccaaaggaag 20

<210> 200

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of pDON-AI DNA.

<400> 200

agctctgtat ctggcggac 19

<210> 201

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of pDON-AI DNA.

<400> 201

gatcgggatt tttggactca g 21

<210> 202

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of verotoxin-1 encoding sequence from hemorrhagic Escherichia coli 0-157. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 202

ggggataatt tgtttgcagu 20

<210> 203

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of verotoxin-1 encoding sequence from hemorrhagic Escherichia coli 0-157. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 203

tcgttcaaca ataagccgua 20

<210> 204

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide probe to detect a DNA fragment amplifying a portion of verotoxin-1 encoding sequence from hemorrhagic Escherichia coli 0-157.

<400> 204

cgcccttcct ctggatctac ccctctgaca 30

<210> 205

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of botulinum toxin A encoding sequence from Clostridium botulinum."nucleotides 19 to 21 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 205

caccagaagc aaaacaaguu c 21

<210> 206

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of botulinum toxin A encoding sequence from Clostridium botulinum."nucleotides 21 to 23 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 206

ctattgatgt taacaacatt cuu 23

<210> 207

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide probe to detect a DNA fragment amplifying a portion of botulinum toxin A encoding sequence from Clostridium botulinum.

<400> 207

gggagttaca aaattatttg agagaattta 30

<210> 208

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of viroid CSVd. "nucleotides 19 to 21 are ribonucleotides-other

nucleotides are deoxyribonucleotides"

<400> 208

caccttcct ttagtttccu u 21

<210> 209

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of viroid CSVd. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 209

cgttgaagct tcagttguuu 20

<210> 210

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide probe to detect a DNA fragment

amplifying a portion of viroid CSVd.

<400> 210

ccttcctctc ctggagaggt cttctgccct 30

<210> 211

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of viroid CSVd. "nucleotides 19 to 21 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 211

caccettcct ttagtttccu u 21

<210> 212

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of

viroid CSVd."nucleotides 19 to 21 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 212

cgttgaagct tcagttgtuu c 21

<210> 213

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of viroid CSVd.

<400> 213

caccttcct ttagtttcct t 21

<210> 214

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of viroid

CSVd.

<400> 214

cgttgaagct tcagttgttt c

21

<210> 215

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of c-ki-ras oncogene."nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 215

gactgaatat aaacttgugg 20

<210> 216

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of c-ki-ras oncogene. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 216

ctattgttgg atcatatucg 20

<210> 217

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of c-ki-ras oncogene.

<400> 217

gactgaatat aaacttgtgg 20

<210> 218

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of c-ki-ras oncogene.

<400> 218

ctattgttggatcatattcg

20

<210> 219

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of verotoxin-2 encoding sequence from hemorrhagic Escherichia coli O-157. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 219

gacttttcga cccaacaaag 20

<210> 220

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer to amplify a portion of verotoxin-2 encoding sequence from hemorrhagic Escherichia coli O-157."nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 220

atatccacag caaaataacu 20

<210> 221

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of INOS-encoding sequence from mouse.

<400> 221

cacaaggcca catcggattt c 21

<210> 222

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of INOS-encoding sequence from mouse.

<400> 222

tgcataccac ttcaacccga g 21

<210> 223

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as pUC19 upper 150 to amplify a portion of plasmid pUC19.

<400> 223

ggtgtcacgc tcgtcgtttg gtatg 25

<210> 224

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as pUC19 lower NN to amplify a portion of plasmid pUC19.

<400> 224

gataacactg cggccaactt acttc 25

<210> 225

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as SEA-1 to amplify a portion of Staphylococcus aureus. "nucleotides 19 to 21 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 225

tgtatgtatg gtggtgtaac g 21

<210> 226

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as SEA-2 to amplify a portion of Staphylococcus aureus. "nucleotides 19 to 21 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 226

taaccgtttc caaaggtacu g 21

<210> 227

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as HCV-F3 to amplify a portion of HCV. "nucleotides 17 to 19 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 227

gcgtctagcc atggcguua 19

<210> 228

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as HCV-R1 to amplify a portion of HCV. "nucleotides 16 to 18 are ribonucleotides-other nucleotides are deoxyribonucleotides"

<400> 228

gcagaccact atggcucu 18

<210> 229

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as MF2 to amplify a portion of pUC19 plasmid DNA.

<400> 229

ggatgtgctg caaggcgatt aagttgggta 30

<210> 230

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as MR1 to amplify a portion of pUC19 plasmid DNA.

<400> 230

tttacacttt atgcttccgg ctcgtatgtt 30

<210> 231

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of adenovirus.

<400> 231

ttatcagcca gtacctcttc g 21

<210> 232

<211> 714

<212> DNA

<213> Thermotoga maritima

<400> 232

atgggaatag atgagcttta caaaaaagag tttggaatcg tagcaggtgt ggatgaagcg 60

ggaagagggt gcctcgcagg tcccgttgtg gcggccgctg tcgttctgga aaaagaaata 120

gaaggaataa acgattcaaa acagctttcc cctgcgaaga gggaaagact tttagatgaa 180

ataatggaga aggcagcagt tgggttagga attgcgtctc cagaggaaat agatctctac 240

aacatattca atgccacaaa acttgctatg aatcgagcac tggagaacct gtctgtgaaa 300

ccatcatttg tactcgttga cgggaaagga atcgagttga gcgttcccgg tacatgctta 360

gtgaagggag accagaaaag caaattgata ggagcagctt ccattgttgc gaaggtcttc 420

agagatagat tgatgagcga gtttcacagg atgtatccac agttttcctt ccacaaacac 480

aaaggttacg ccacaaaaga acatctgaac gaaatcagaa agaacggagt tttaccaatc 540

caccggctga gttttgaacc tgttttagaa cttctgaccg atgatttgtt gagggagttc 600

ttcgaaaaag gcctcatctc cgaaaatcga ttcgaacgaa tattgaatct tctgggggcg 660

agaaaaagtg tggttttccg gaaagaaaga acaaaccata atctccctct tttt 714

<210> 233

<211> 238

<212> PRT

<213> Thermotoga maritima

<400> 233

Met Gly Ile Asp Glu Leu Tyr Lys Lys Glu Phe Gly Ile Val Ala

1 5 10 15

Gly Val Asp Glu Ala Gly Arg Gly Cys Leu Ala Gly Pro Val Val

20 25 30

Ala Ala Ala Val Val Leu Glu Lys Glu Ile Glu Gly Ile Asn Asp
35 40 45
Ser Lys Gln Leu Ser Pro Ala Lys Arg Glu Arg Leu Leu Asp Glu
50 55 60
Ile Met Glu Lys Ala Ala Val Gly Leu Gly Ile Ala Ser Pro Glu
65 70 75
Glu Ile Asp Leu Tyr Asn Ile Phe Asn Ala Thr Lys Leu Ala Met
80 85 90
Asn Arg Ala Leu Glu Asn Leu Ser Val Lys Pro Ser Phe Val Leu
95 100 105
Val Asp Gly Lys Gly Ile Glu Leu Ser Val Pro Gly Thr Cys Leu
110 115 120
Val Lys Gly Asp Gln Lys Ser Lys Leu Ile Gly Ala Ala Ser Ile
125 130 135
Val Ala Lys Val Phe Arg Asp Arg Leu Met Ser Glu Phe His Arg
140 145 150
Met Tyr Pro Gln Phe Ser Phe His Lys His Lys Gly Tyr Ala Thr
155 160 165
Lys Glu His Leu Asn Glu Ile Arg Lys Asn Gly Val Leu Pro Ile
170 175 180
His Arg Leu Ser Phe Glu Pro Val Leu Glu Leu Leu Thr Asp Asp
185 190 195
Leu Leu Arg Glu Phe Phe Glu Lys Gly Leu Ile Ser Glu Asn Arg
200 205 210
Phe Glu Arg Ile Leu Asn Leu Leu Gly Ala Arg Lys Ser Val Val

215 220 225

Phe Arg Lys Glu Arg Thr Asn His Asn Leu Pro Leu Phe

230 235

<210> 234

<211> 663

<212> DNA

<213> Pyrococcus horikoshii

<400> 234

atgaaggttg ctggagttga tgaagcgggg agggggccgg taattggccc gttagtaatt 60

ggagtagccg ttatagatga gaaaaatatt gagaggttac gtgacattgg ggttaaagac 120

tccaaacaat taactcctgg gcaacgtgaa aaactattta gcaaattaat agatatccta 180

gacgattatt atgttcttct cgttaccccc aaggaaatag atgagaggca tcattctatg 240

aatgaactag aagctgagaa attcgttgta gccttgaatt ctttaaggat caagccgcag 300

aagatatatg tggactctgc cgatgtagat cctaagaggt ttgctagtct aataaaggct 360

gggttgaaat atgaagccac ggttatcgcc gagcataaag ccgatgcaaa gtatgagata 420

gtatcggcag catcaataat tgcaaaggtc actagggata gagagataga gaagctaaag 480

caaaagtatg gggaatttgg ttctggctat ccgagtgatc cgagaactaa ggagtggctt 540

gaagaatatt acaaacaata tggtgacttt cctccaatag ttaggagaac ttgggaaacc 600

gctaggaaga tagaggaaag gtttagaaaa aatcagctaa cgcttgataa attccttaag 660

tga 663

<210> 235

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer PhoNde for cloning a gene encoding a polypeptide having a RNaseHII activity from Pyrococcus horikoshii

<400> 235

aggaggaaaa tcatatgaag gttgctggag 30

<210> 236

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer PhoBam for cloning a gene encoding a polypeptide having a RNaseHII activity from Pyrococcus horikoshii

<400> 236

ttacatgaag gatccaagat cacttaagga 30

<210> 237

<211> 663

<212> DNA

<213> Pyrococcus horikoshii

<400> 237

atgaaggttg ctggagttga tgaagcgggg agggggccgg taattggccc gttagtaatt 60

ggagtagccg ttatagatga gaaaaatatt gagaggttac gtgacattgg ggttaaagac 120

tccaaacaat taactcctgg gcaacgtgaa aaactattta gcaaattaat agatatccta 180

gacgattatt atgttcttct cgttaccccc aaggaaatag atgagaggca tcattctatg 240

aatgaactag aagctgagaa attcgttgta gccttgaatt ctttaaggat caagccgcag 300

aagatatatg tggactctgc cgatgtagat cctaagaggt ttgctagtct aataaaggct 360

gggttgaaat atgaagccac ggttatcgcc gagcataaag ccgatgcaaa gtatgagata 420

gtatcggcag catcaataat tgcaaaggtc actagggata gagagataga gaagctaaag 480

caaaagtatg gggaatttgg ttctggctat ccgagtgatc cgagaactaa ggagtggctt 540

gaagaatatt acaaacaata tggtgacttt cctccaatag ttaggagaac ttgggaaacc 600

gctaggaaga tagaggaaag gtttagaaaa aatcagctaa cgcttgataa attccttaag 660

tgatcttgga tcc 663

<210> 238

<211> 220

<212> PRT

<213> Pyrococcus horikoshii

<400> 238

Met Lys Val Ala Gly Val Asp Glu Ala Gly Arg Gly Pro Val Ile

1 5 10 15

Gly Pro Leu Val Ile Gly Val Ala Val Ile Asp Glu Lys Asn Ile

20 25 30

Glu Arg Leu Arg Asp Ile Gly Val Lys Asp Ser Lys Gln Leu Thr

35 40 45

Pro Gly Gln Arg Glu Lys Leu Phe Ser Lys Leu Ile Asp Ile Leu

50 55 60

Asp Asp Tyr Tyr Val Leu Leu Val Thr Pro Lys Glu Ile Asp Glu

65 70 75

Arg His His Ser Met Asn Glu Leu Glu Ala Glu Lys Phe Val Val

80 85 90

Ala Leu Asn Ser Leu Arg Ile Lys Pro Gln Lys Ile Tyr Val Asp

95 100 105

Ser Ala Asp Val Asp Pro Lys Arg Phe Ala Ser Leu Ile Lys Ala

110 115 120

Gly Leu Lys Tyr Glu Ala Thr Val Ile Ala Glu His Lys Ala Asp

125 130 135

Ala Lys Tyr Glu Ile Val Ser Ala Ala Ser Ile Ile Ala Lys Val

140 145 150

Thr Arg Asp Arg Glu Ile Glu Lys Leu Lys Gln Lys Tyr Gly Glu

155 160 165

Phe Gly Ser Gly Tyr Pro Ser Asp Pro Arg Thr Lys Glu Trp Leu

170 175 180

Glu Glu Tyr Tyr Lys Gln Tyr Gly Asp Phe Pro Pro Ile Val Arg

185 190 195

Arg Thr Trp Glu Thr Ala Arg Lys Ile Glu Glu Arg Phe Arg Lys

200 205 210

Asn Gln Leu Thr Leu Asp Lys Phe Leu Lys
215 220

<210> 239

<211> 626

<212> DNA

<213> Archaeoglobus fulgidus

<400> 239

atgaaggcag gcatcgatga ggctggaaag ggctgcgtca tcggcccact ggttgttgca 60

ggagtggctt gcagcgatga ggataggctg agaaagcttg gtgtgaaaga ctccaaaaag 120

ctaagtcagg ggaggagaga ggaactagcc gaggaaataa ggaaaatctg cagaacggag 180

gttttgaaag tttctcccga aaatctcgac gaaaggatgg ctgctaaaac cataaacgag 240

attttgaagg agtgctacgc tgaaataatt ctcaggctga agccggaaat tgcttatgtt 300

gacagtcctg atgtgattcc cgagagactt tcgagggagc ttgaggagat tacggggttg 360

agagttgtgg ccgagcacaa ggcggacgag aagtatcccc tggtagctgc ggcttcaatc 420

atcgcaaagg tggaaaggga gcgggagatt gagaggctga aagaaaaatt cggggatttc 480

ggcagcggct atgcgagcga tccgaggaca agagaagtgc tgaaggagtg gatagcttca 540

ggcagaattc cgagctgcgt gagaatgcgc tggaagacgg tgtcaaatct gaggcagaag 600

acgcttgacg atttctaaac gaaacc 626

<210> 240

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer AfuNde for cloning a gene encoding a polypeptide having a RNaseHII activity from Archaeoglobus fulgidus

<400> 240

aagctgggtt tcatatgaag gcaggcatcg 30

<210> 241

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer AfuBam for cloning a gene encoding a polypeptide having a RNaseHII activity from Archaeoglobus fulgidus

<400> 241

tggtaataac ggatccgttt agaaatcgtc 30

<210> 242

<211> 638

<212> DNA

<213> Archaeoglobus fulgidus

<400> 242

catatgaagg caggcatcga tgaggctgga aagggctgcg tcatcggccc actggttgtt 60

gcaggagtgg cttgcagcga tgaggatagg ctgagaaagc ttggtgtgaa agactccaaa 120

aagctaagtc aggggaggag agaggaacta gccgaggaaa taaggaaaat ctgcagaacg 180

gaggttttga aagtttctcc cgaaaatctc gacgaaagga tggctgctaa aaccataaac 240

gagattttga aggagtgcta cgctgaaata attctcaggc tgaagccgga aattgcttat 300

gttgacagtc ctgatgtgat tcccgagaga ctttcgaggg agcttgagga gattacgggg 360

ttgagagttg tggccgagca caaggcggac gagaagtatc ccctggtagc tgcggcttca 420

atcatcgcaa aggtggaaag ggagcgggag attgagaggc tgaaagaaaa attcggggat 480

ttcggcagcg gctatgcgag cgatccgagg acaagagaag tgctgaagga gtggatagct 540

tcaggcagaa ttccgagctg cgtgagaatg cgctggaaga cggtgtcaaa tctgaggcag 600

aagacgcttg acgatttcta aacggatccc cgggtacc 638

<210> 243

<211> 205

<212> PRT

<213> Archaeoglobus fulgidus

<400> 243

Met Lys Ala Gly Ile Asp Glu Ala Gly Lys Gly Cys Val Ile Gly
1 5 10 15

Pro Leu Val Val Ala Gly Val Ala Cys Ser Asp Glu Asp Arg Leu
20 25 30

Arg Lys Leu Gly Val Lys Asp Ser Lys Lys Leu Ser Gln Gly Arg
35 40 45

Arg Glu Glu Leu Ala Glu Glu Ile Arg Lys Ile Cys Arg Thr Glu
50 55 60

Val Leu Lys Val Ser Pro Glu Asn Leu Asp Glu Arg Met Ala Ala
65 70 75

Lys Thr Ile Asn Glu Ile Leu Lys Glu Cys Tyr Ala Glu Ile Ile
80 85 90

Leu Arg Leu Lys Pro Glu Ile Ala Tyr Val Asp Ser Pro Asp Val
95 100 105

Ile Pro Glu Arg Leu Ser Arg Glu Leu Glu Glu Ile Thr Gly Leu
110 115 120

Arg Val Val Ala Glu HisLys Ala Asp Glu Lys Tyr Pro Leu Val
125 130 135

Ala Ala Ala Ser Ile Ile Ala Lys Val Glu Arg Glu Arg Glu Ile
140 145 150

Glu Arg Leu Lys Glu Lys Phe Gly Asp Phe Gly Ser Gly Tyr Ala
155 160 165

Ser Asp Pro Arg Thr Arg Glu Val Leu Lys Glu Trp Ile Ala Ser
170 175 180

Gly Arg Ile Pro Ser Cys Val Arg Met Arg Trp Lys Thr Val Ser
185 190 195

Asn Leu Arg Gln Lys Thr Leu Asp Asp Phe
200 205

<210> 244

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as MTIS2F to amplify a portion of Mycobacterium tuberculosis DNA."nucleotides 16 to 18 are ribonucleotides-other nucleotides are deoxyribonucleotides."

<400> 244

tctcgtccag cgccgcuu 18

<210> 245

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as MTIS2R to amplify a portion of Mycobacterium tuberculosis DNA."nucleotides 19 to 21 are ribonucleotides-other nucleotides are deoxyribonucleotides."

<400> 245

gacaaaggcc acgtaggcga a 21

<210> 246

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as CT2F to amplify a portion of Chlamydia trachomatis cryptic plasmid DNA." nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides."

<400> 246

ctggatttat cggaaaccuu 20

<210> 247

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as CT2R to amplify a portion of Chlamydia trachomatis cryptic plasmid DNA." nucleotides 16 to 18 are ribonucleotides-other nucleotides are deoxyribonucleotides."

<400> 247

aggcctctga aacgacuu 18

<210> 248

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as K-F-1033(60) to amplify a portion of Mycobacterium tuberculosis DNA." nucleotides 17 to 19 are ribonucleotides-other nucleotides are deoxyribonucleotides."

<400> 248

cacatcgatc cggttcagc 19

<210> 249

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as K-R-1133(62) to amplify a portion of Mycobacterium tuberculosis DNA." nucleotides 18 to 20 are ribonucleotides-other nucleotides are

deoxyribonucleotides."

<400> 249

tgatcgtctc ggctagtgca 20

<210> 250

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as K-F-1033(68) to amplify a portion of Mycobacterium tuberculosis DNA."nucleotides 20 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides."

<400> 250

gtacacatcg atccggttca gc 22

<210> 251

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as K-R-1133(68) to amplify a portion of Mycobacterium tuberculosis DNA." nucleotides 20 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides."

<400> 251

gttgatcgtc tcggctagtg ca 22

<210> 252

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as F26 to amplify a portion of Mycobacterium tuberculosis DNA.

<400> 252

ccggagactc cagttcttgg 20

<210> 253

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as R1310 to amplify a portion of Mycobacterium tuberculosis DNA.

<400> 253

gtctctggcg ttgagcgtag 20

<210> 254

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as pDON-AI-68-1 to amplify a portion of pDON-AI."nucleotides 20 to 22 are ribonucleotides-other nucleotides are deoxyribonucleotides."

<400> 254

actagctctg tatctggcgg ac 22

<210> 255

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as pDON-AI-68-2 to amplify a portion of pDON-AI."nucleotides 21 to 23 are ribonucleotides-other nucleotides are deoxyribonucleotides."

<400> 255

acgatcggga tttttggact cag 23

<210> 256

<211> 300

<212> DNA

<213> Homo sapiens proto-oncogene Wnt-5a

<400> 256

cactagattt tttgtttggg gaggttggct tgaacataaa tgaaatatcc tgtattttct 60

tagggatact tggttagtaa attataatag tagaaataat acatgaatcc cattcacagg 120

tttctcagcc caagcaacaa ggtaattgcg tgccattcag cactgcacca gagcagacaa 180

cctatttgag gaaaaacagt gaaatccacc ttcctcttca cactgagccc tctctgattc 240

ctccgtgttg tgatgtgatg ctggccacgt ttccaaacgg cagctccact gggtcccctt 300

<210> 257

<211> 300

<212> DNA

<213> Homo sapiens ribosomal protein S5

<400> 257

cgccgagtga cagagacgct caggctgtgt tctcaggatg accgagtggg agacagcagc 60

accagcggtg gcagagaccc cagacatcaa gctctttggg aagtggagca ccgatgatgt 120

gcagatcaat gacatttccc tgcaggatta cattgcagtg aaggagaagt atgccaagta 180

cctccctcac agtgcagggc ggtatgccgc aaacgctttc cgcaaagctc agtgtcccat 240

tgtggagcgc ctcactaact ccatgatgat gcacggccgc aacaacggca agaagctcat 300

<210> 258

<211> 300

<212> DNA

<213> Homo sapiens diaphorase

<400> 258

tctatacaaa ttttcagaag gttattttct ttatcattgc taaactgatg acttaccatg 60

ggatggggtc cagtcccatg accttggggt acaattgtaa acctagagtt ttatcaactt 120

tggtgaacag ttttggcata atagtcaatt tctacttctg gaagtcatct cattccactg 180

ttggtattat ataattcaag gagaatatga taaaacactg ccctcttgtg gtgcattgaa 240

agaagagatg agaaatgatg aaaaggttgc ctgaaaaatg ggagacagcc tcttacttgc 300

<210> 259

<211> 300

<212> DNA

<213> Human protocadherin

<400> 259

agtctcttgg gatcccctaa ccagagcctt tttgccatag ggctgcacac tggtcaaatc 60

agtactgccc gtccagtcca agacacagat tcacccaggc agactctcac ggtcttgatc 120

aaagacaatg gggagccttc gctctccacc actgctaccc tcactgtgtc agtaaccgag 180

gactctcctg aagcccgagc cgagttcccc tctggctctg ccccccggga gcagaaaaaa 240

aatctcacct tttatctact tctttcccta atcctggttt ctgtggggtt tgtggtcaca 300

<210> 260

<211> 80

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide for making of pIC62.

<400> 260

catgtacatc acagtagtcg ttcacagggt tttccggcca taatggcctt tcctgtgtgt 60

gtgctacagc tagtcagtca 80

<210> 261

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as

ICAN2."nucleotides 19 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides."

<400> 261

actgactagc tgtagcacac 20

<210> 262

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as ICAN6."nucleotides 19 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides."

<400> 262

acatcacagt agtcgttcac 20

<210> 263

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as ICAN2 DNA."

<400> 263

actgactagc tgtagcacac 20

<210> 264

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as ICAN6 DNA.

<400> 264

acatcacagt agtcgttcac 20

<210> 265

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of ribosomal protein S18-encoding sequence from mouse.

<400> 265

gtctctagtg atccctgaga agt 23

<210> 266

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of ribosomal protein S18-encoding sequence from mouse.

<400> 266

tggatacacc cacagttcgg ccc 23

<210> 267

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of transferrin receptor (TFR)-encoding sequence from mouse.

<400> 267

ccgcgctccg acaagtagat gga 23

<210> 268

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of transferrin receptor (TFR)-encoding sequence from mouse.

<400> 268

ccaaagagtg caaggtctgc ctc 23

<210> 269

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of stromal cell derived factor 4 (Sdf4)-encoding sequence from mouse.

<400> 269

tctgatggat gcaaccgcta gac 23

<210> 270

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of stromal cell derived factor 4 (Sdf4)-encoding sequence from mouse.

<400> 270

gaactcttca tgcacgttgc ggg 23

<210> 271

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of cytoplasmic beta-actin encoding sequence from mouse.

<400> 271

tgatggtggg aatgggtcag aag 23

<210> 272

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of cytoplasmic beta-actin encoding sequence from mouse.

<400> 272

agaagcactt gcggtgcacg atg 23

<210> 273

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of ornithine decarboxylase-encoding sequence from mouse.

<400> 273

gatgaaagtc gccagagcac atc 23

<210> 274

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of ornithine decarboxylase-encoding sequence from mouse.

<400> 274

ttgatcctag cagaagcaca ggc 23

<210> 275

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of hypoxanthine guanine phosphoribosyl transferase (HPRT)-encoding sequence from mouse.

<400> 275

ggacaggact gaaagacttg ctc 23

<210> 276

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of hypoxanthine guanine phosphoribosyl transferase (HPRT)-encoding sequence from mouse.

<400> 276

gtctggcctg tatccaacac ttc 23

<210> 277

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of tyrosine 3-monooxygenase encoding sequence from mouse.

<400> 277

atgagctggt gcagaaggcc aag 23

<210> 278

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer to amplify a portion of tyrosine 3-monooxygenase encoding sequence from mouse.

<400> 278

ttcccctcct tctcctgctt ctg 23

<210> 279

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as MCS-F.

<400> 279

ccattcaggc tgcgcaatgt t 21

<210> 280

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as MCS-R

<400> 280

tggcacgaca ggtttcccga ct 22

<210> 281

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as MF2N3(24). "nucleotides 22 to 24 are ribonucleoitdes-other nucleotides are deoxyribonucleotides."

<400> 281

gctgcaaggc gattaagttg ggua 24

<210> 282

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as MR1N3(24). "nucleotides 22 to 24 are ribonucleoitdes-other nucleotides are deoxyribonucleotides."

<400> 282

ctttatgctt ccggctcgta tguu 24

<210> 283

<211> 16

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as MTIS2F-16 to amplify a portion of Mycobacterium tuberculosis DNA."nucleotides 14 to 16 are ribonucleotides-other nucleotides are deoxyribonucleotides."

<400> 283

tcgtccagcg ccgcuu 16

<210> 284

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as MTIS2R-ACC to amplify a portion of Mycobacterium tuberculosis DNA." nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides."

<400> 284

caaaggccac gtaggcgaac 20

<210> 285

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as MTIS-PCR-F-2 to amplify a portion of Mycobacterium tuberculosis DNA.

<400> 285

cgaccgcatc aaccgggagc 20

<210> 286

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as MTIS-PCR-R-2 to amplify a portion of Mycobacterium tuberculosis DNA.

<400> 286

cccaggatcc tgcgagcgta 20

<210> 287

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as SP6-HCV-F to amplify a portion of HCV.

<400> 287

ccatttaggt gacactatag aatactgatg ggggcgacac tccac 45

<210> 288

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed oligonucleotide primer designated as SP6-HCV-R to amplify a portion of HCV

<400> 288

agctctaata cgactcacta tagggtcgca agcaccctat caggc 45

<210> 289

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as HCV-A S to amplify a portion of HCV."nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides."

<400> 289

gggtcctttc ttggatcaac 20

<210> 290

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Designed chimeric oligonucleotide primer designated as HCV-A A to amplify a portion of HCV. "nucleotides 18 to 20 are ribonucleotides-other nucleotides are deoxyribonucleotides."

<400> 290

gacccaacac tactcggcua 20